REMARKS

Reconsideration of this application as amended is respectfully requested.

THE CLAIMS

Claims 12-15 have been canceled, without prejudice, and new claims 16-21 have been added. In particular, it is noted that new claim 16 includes the limitations of canceled claims 12 and 13, new claim 17 includes the limitations of canceled claims 12 and 14, and new claim 18 includes the limitations of canceled claims 12 and 15. New claims 19-21, moreover, recite the subject matter of new claims 16-18 in non-"means-plus-function" form. No new matter has been added, and it is respectfully requested that the new claims be approved and entered.

CLAIM FEE

The application now contains 6 claims, of which 6 are independent. Accordingly, a claim fee in the amount of $252.00 for the addition of 3 extra independent claims is attached hereto. In addition, authorization is hereby given to charge any additional fees which may be determined to be required to Account No. 06-1378.

THE PRIOR ART REJECTIONS

Claims 12 and 14 were rejected under 35 USC 102 as being anticipated by USP 4,61,692 ("Kawasaki"), claim 13 was rejected

as being obvious in view of the combination of Kawasaki and USP 4,736,241 ("Murakami et al"), and claim 15 was rejected under 35 USC 103 as being obvious in view of the combination of Kawasaki and JP 08254657 ("Tanaka et al"). These rejections, however, are respectfully traversed with respect to new claims 16-21.

According to the present invention as recited in new claim 16, a microscope electronic camera is provided which comprises, *inter alia*, "color temperature detecting means, electrically connected to the recognizing means and provided between the light source of the microscope and the specimen, for detecting color temperature" and "gain setting means, electrically connected to the signal processing means, for changing a gain of the image signal in accordance with the color temperature detected by the color temperature detecting means." With this structure, the color temperature detecting means (e.g., the color temperature detection sections 120 and 121 shown in Fig. 10 of the present application) is provided between the light source and the specimen. Accordingly, it is possible to directly detect the color temperature of the light source itself, and thereby accurately correct a white balance in accordance with the detected color temperature of the light source itself, without being influenced by the color of the specimen.

By contrast, Murakami et al discloses an automatic tracking white balance circuit 7 (see Fig. 1 thereof) in which an R signal and B signal of an image signal are controlled to signals R' and

B' by gain control circuits 3 and 4 so that the white balance is adjusted. (See column 5 lines 9-37 of Murakami et al.) An R' - B' signal produced from the signals R' and B' by a processing circuit 10 is filtered and averaged by a filter circuit 11. The average signal varies with the color temperature, and the detection signal is relatively intensive to the chrominance signals represented by the quadrants I and III. The detected color temperature signal is compared with the reference voltage by a comparator/amplifier 12 having an amplification characteristic which is non-linear to the difference and of relatively low gain. And the control signal amplified by the comparator/amplifier 12 is used to control the R gain and B gain.

It is respectfully pointed out, however, that the color temperature detecting means of Murakami et al is <u>not</u> provided between the light source and the specimen, as according to the structure of the present invention as recited in new claim 16. And it is also noted that if monotint is dominant on the specimen (as characterized in a microscope) in Murakami et al, it is impossible to accurately detect the color temperature because of the influence of the monotint, so that the white balance cannot be accurately corrected.

Accordingly, it is respectfully submitted that even if the teachings of Murakami et al were combinable with the teachings of Kawasaki in the manner suggested by the Examiner, the structural features and advantageous effects of the present invention as

recited in new claim 16 would still not be achieved or rendered obvious.

According to the present invention as recited in new claim 17, a microscope electronic camera is provided which comprises, *inter alia*, "recognizing means for, when the setting of the observation condition in the microscope is changed, recognizing changed setting information, and also for recognizing magnification/specimen change information relating to at least one of a change of observation magnification and a change of the specimen" and "filter coefficient changing means, connected to the signal processing means, for changing a filter coefficient, which determines a degree of contour accentuation suitable for observation with respect to the image signal, in accordance with the magnification/specimen change information recognized by the recognizing means." With this structure, the filter coefficient, which determines the degree of contour accentuation suitable for observation, can be changed by the filter coefficient changing means (e.g., the filter circuit 140 shown in Fig. 11 of the present application). Accordingly, it is possible to obtain an image signal in which contour accentuation adapted to at least one of a change of observation magnification and a change of the specimen is processed.

By contrast, Kawasaki discloses a microscope controlling device 50 (see Fig. 3 thereof) in which the magnification of a condenser lens 75, the stop diameters of a field stop 79 and an aperture stop 77, and the like, are set according to a data

table when the objective lens is inserted in the light path. At this time, a light amount of the observation light is detected by an image pickup device 61 and an ND filter 81 is switched such that the brightness of the observing system will be able to be set at a predetermined optimum value. (See column 7 to column 10 of Kawasaki.)

It is to be noted that in Kawasaki, the ND filter is a light control filter which adjusts only brightness, and does not change the color temperature. Basically, the ND filter does not process the contour accentuation. And the ND-filter switching driving device 80 merely adjusts the passing light amount by switching an ND filter 81 (see column 6 lines 51-54), not by executing any electrical process with respect to the image signal obtained from the imaging element.

The brightness or contour of the optical observation image may be corrected by controlling the stop diameters of the field stop and aperture stop, and ND filter. However, for the image signal (to be displayed on a monitor or to be recorded onto a medium), a process for determining a degree of contour accentuation suitable for observation should be further required. Kawasaki's technique does not meet such requirement, unlike the present invention as recited in new claim 17.

Accordingly, it is respectfully submitted that Kawasaki does not at all disclose, teach or suggest the structural features and advantageous effects of the present invention as recited in new claim 17.

According to the present invention as recited in new claim 18, a microscope electronic camera is provided which comprises, *inter alia*, "recognizing means for, when the setting of the observation condition in the microscope is changed, recognizing changed setting information, and also for recognizing observation method change information relating to a change of observation methods" and "setting means, connected to the signal processing means, for setting a tone conversion table corresponding to an observation method in accordance with the observation method change information recognized by the recognizing means." With this structure, a tone conversion table corresponding to an observation method can be set by the setting means (e.g., LUT circuit 150 shown in Fig. 12 of the present application). Accordingly, it is possible, for example, to set a tone curve (gradation characteristics) conversion table that causes the brightness level of a middle brightness portion to be set higher for a transmission bright-field observation, and to set a tone curve (gradation characteristics) conversion table that causes the brightness level of a low-brightness portion to a middle brightness portion to be set higher for a projection bright-field observation. Consequently, the tone correction is automatically executed for the image signal in accordance with the observation method, so that an optimum observation image adapted to the observation method can be attained. In other words, the structure of the present invention as recited in new claim 18 makes it is possible to adequately correct the tone

level (not a color tone) in accordance with the observation method.

By contrast, Tanaka et al discloses a technique of selectively inserting various kinds of color correction filters into an optical path to a color temperature detecting device so as to adjust a difference of color temperatures between the optical path to the color temperature detecting device and an optical path to a camera. Clearly, however, Tanaka et al fails to disclose, teach or suggest setting a tone conversion table corresponding to an observation method, with a result that it in Tanaka et al it is impossible to adequately correct the tone level in accordance with the observation method.

Accordingly, it is respectfully submitted that even if the teachings of Tanaka et al were combinable with the teachings of Kawasaki in the manner suggested by the Examiner, the structural features and advantageous effects of the present invention as recited in new claim 18 would still not be achieved or rendered obvious.

In view of the foregoing, it is respectfully submitted that each of new claims 16-18 patentably distinguishes over all of the cited references, taken singly or in any combination, under 35 USC 102 as well as under 35 USC 103.

New claims 19-21, moreover, recite the subject matter of new claims 16-18 in non-"means-plus-function" form, and it is respectfully submitted that these claims also patentably

distinguish over the cited references for the same reasons described above with respect to new claims 16-18.

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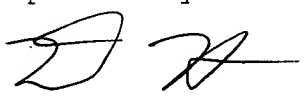
Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



Douglas Holtz, Esq.
Reg. No. 33,902

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Frishauf, Holtz, Goodman & Chick, P.C.
767 Third Avenue - 25th Floor
New York, New York 10017-2023
Tel. No. (212) 319-4900
Fax No. (212) 319-5101
DH:bpg